

## CARBON FIBER FILTERS

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### CROSS REFERENCE TO RELATED APPLICATIONS

(RSP) This is a continuation of Application No. 10/321,214, filed December 17, 2002, which is a  
(RSP) continuation of 09/347,223, filed July 2, 1999, <sup>now abandoned,</sup> which is a continuation-in-part patent application  
15 which claims the benefit of (1) U.S. Provisional Patent Application Serial Number 60/091,593  
(RSP) filed July 2, 1998; (2) U.S. Patent Application Serial No. 08/935,631 filed September 23, 1997, <sup>now U.S. Patent No. 5,972,253</sup>  
which claims priority to U.S. Provisional Patent Application Serial No. 60/027,193, filed  
September 30, 1996, entitled "Preparation of Monolithic Carbon Fiber Composite Material"; (3)  
(RSP) 15 U.S. Patent Application Serial No. 08/747,109, filed November 8, 1996, <sup>now U.S. Patent No. 6,030,698</sup> entitled "Activated  
Carbon Fiber Composite Material and Method of Making" which depends from U.S. Patent  
Application Serial No. 08/358,857, filed December 19, 1994, entitled "Activated Carbon Fiber  
(RSP) Composite Material and Method of Making", <sup>now abandoned</sup> and (4) U.S. Provisional Patent Application Serial  
No. 60/132,309, filed May 3, 1999 by M. E. Tremblay et al., entitled "Filters for Removal of  
20 Pathogens from Liquids", the substances of which are incorporated herein by reference.

### TECHNICAL FIELD

The present invention relates to filters capable of removing various contaminants, including pathogens, from fluids (air and liquids) by filtration. In particular, it relates to filters that comprise activated carbon fibers for removing a broad spectrum of contaminants, including  
25 viruses, from liquids. Additionally, the invention relates to a method of removing contaminants from liquids.

### BACKGROUND OF THE INVENTION

Water may contain many different kinds of contaminants including, for example, particulates, harmful chemicals, and microbiological organisms, such as bacteria, parasites,  
30 protozoa and viruses. In a variety of circumstances, these contaminants must be removed before the water can be used. For example, in many medical applications and in the manufacture of certain electronic components, extremely pure water is required. As a more common example,